

35 U.S.C. § 103(a) as being unpatentable over Takayama in view of Albert et al. (U.S. Patent No. 5,991,410) ("Albert"); claim 9 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama in view of Albert and further in view of Loder (U.S. Patent No. 5,748,720) ("Loder"); claim 10 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama in view of Albert and further in view of Vatanen (U.S. Patent No. 6,169,890 B1) ("Vatanen"); claim 11 was rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama in view of Albert and further in view of Barabash et al. (U.S. Patent No. 6,101,378) ("Barabash"); claims 16 and 17 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama in view of Forslund et al. (U.S. Patent No. 6,250,557) ("Forslund"); and claims 18 and 19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Takayama in view of Shitara et al. (U.S. Patent No. 4,833,702) ("Shitara"). The foregoing rejections are respectfully traversed.

Claims 1-2, 5-11, and 13-19 are pending in the subject application, of which claims 1, 5, and 13 are independent. The specification and claims 1 and 5 are amended, new claim 26 is added, and claim 3 is canceled. Care has been exercised to avoid the introduction of new matter. A Version With Markings To Show Changes Made to the specification and amended claims is included herewith.

Claim Amendments:

Claim 3 is canceled, and claims 1 and 5 are amended to include the recitation of claim 3. Therefore, the rejection of claims 1 and 5-8 under 35 U.S.C. § 102(e) as being anticipated by Takayama should be withdrawn.

Claim Rejections:

Cited References:

Takayama discusses a personal remote credit settlement system that comprises a personal credit terminal 100 having two systems of bi-directional radio communication functions and an electronic credit card function; a credit card settlement device 101 for performing a credit transaction at a store; a settlement system 103 for performing credit settlement at a credit service company or a transaction company; a service providing system 102, which is located at the center of a network that links it to the personal credit terminal 100, the credit settlement

device 101, and the settlement system 103; and a wireless telephone base station 104, which links the personal credit terminal 100 to a digital public line network 108 to provide a data transmission path (Takayama, col. 43, line 59 – col. 44, line 6).

Albert discusses a method of a wireless adaptor receiving financial information, indicative of financial transactions, in PSTN compatible format, encrypting and converting the information into PSTN non-compatible format, transmitting the encrypted and converted information to a host computer, decrypting the information by the host computer, transmitting the decrypted information to an authorization processor, which transmits back to the host computer signals indicating authorization or denial of the transaction, the host computer transforming the signal received from the authorization processor to PSTN non-compatible format, and transmitting to the financial device the authorization or denial signal (Albert, Abstract).

Klingman discusses a remote communication system for facilitating secure on-line evaluation of goods based upon consumers' satisfaction through electronic media (Klingman, Abstract).

Independent Claims:

In contrast, claims 1 and 5 of the subject application (as amended herein) recite that "said enciphering circuit and deciphering circuit are constituted by an enciphering/deciphering processor, and an enciphering and deciphering method used by said enciphering/deciphering processor is changed by changing software installed in said enciphering/deciphering processor."

Claim 13 of the subject application recites that "said service center further including determining means for determining whether or not service can be provided to the user based on a present state of the user."

Differences Between Claimed Invention and Cited References:

Claims 1 and 5:

The Examiner admits that Takayama does not disclose or suggest changing an enciphering and deciphering method used by the enciphering/deciphering processor by changing software installed in the enciphering/deciphering processor (Office Action, p. 6, item 5). However, contrary to the Examiner's assertion in the Office Action in item 5 on page 7, Albert

does not disclose or suggest the same.

The Examiner cites a frame transmitted from terminal 100 to wireless adapter 200, which is sent in response to an ENQ character (05 Hex) that is sent to terminal 100 (Albert, col. 15, lines 52-61). The Examiner then asserts that the frame contains a software update, and that such a capability renders the changing of the enciphering/deciphering method by changing the software in the enciphering/deciphering processor obvious. Aside from inadequate support for the combination of Takayama and Albert, specifically the lack of the required motivation to combine the references (see discussion thereof below), the Examiner's interpretation of the frame in Albert is erroneous.

Although wireless adapter 200 may include encryption circuit 203 (Albert, col. 10, lines 37-43; col. 12, lines 34-48), the cited frame in Albert is not associated with encryption or decryption. Specifically, the cited frame contains a credit card number, and expiration date of the credit card, an amount of a desired transaction, a merchant identification number, and any other information needed to obtain authorization of the financial transaction (Albert, col. 6, line 65 – col. 7, line 2). The cited frame may also contain an error checking and correcting code (Albert, col. 7, lines 2-3). Albert discusses that wireless adapter 200 may contain encryption circuit 203 (Albert, col. 10, lines 37-43; col. 12, lines 34-48), but does not disclose or suggest that the cited frame contains any software updates, nor does Albert disclose or suggest that the cited frame contains any information that is relevant to enciphering or deciphering.

In addition, Takayama teaches away from the claimed invention. Specifically, Takayama is directed to a credit card system. In order to make a credit card settlement, a credit card settlement process must be performed by a central processing unit (settlement system 103) located at a credit service company or a credit payment processing company (Takayama, col. 43, lines 64-66; col. 44, lines 32-33).

In contrast, in the present invention, digital money can be used as if it is physical money (e.g., bills or coins) and there is no need to perform a settlement or payment process for each credit card payment. The present invention is advantageous over Takayama for the following reasons: (1) in the present invention, the exchange of digital money can be achieved between portable terminals by using the short-distance communication; (2) in the present invention, a user is not required to enter into a credit card contract with a credit card company or a personal remote credit payment service contract with a credit payment processing company, whereas the credit card system of Takayama requires a user to make a contract to use a credit card payment

service (Takayama, col. 44, lines 40-42); (3) in the present invention, a store or retail shop is not required to enter into a credit card store contract with a credit card company or a personal remote credit payment service store contract with a credit payment processing company, whereas the credit card system of Takayama requires a store or shop to make a contract to offer a credit card payment service to a customer (Takayama, col. 44, lines 46-50); and (4) because there is no need to perform a settlement process by a financial institution for each payment at a point of transaction, the running cost of the digital money system is reduced, thereby improving the convenience of digital money, which promotes its use.

Because neither Takayama (as admitted by the Examiner) or Albert (as described herein) discloses or suggests that the enciphering/deciphering method used by the enciphering/deciphering processor is changed by changing software installed in the enciphering/deciphering processor, and because Takayama teaches away from the claimed invention, claims 1 and 5 (as amended herein) are patentably distinguishable over Takayama and Albert, taken alone or in combination.

Claim 13:

The Examiner admits that Takayama does not disclose or suggest that the service center includes determining means for determining whether or not service can be provided to the user based on a present state of the user (Office Action, p. 5, item 3). Aside from inadequate support for the combination of Takayama and Klingman, specifically, the lack of the required motivation to combine the references (see discussion thereof below), and contrary to the Examiner's assertion in item 3 on page 5 of the Office Action, Klingman does not disclose or suggest the same.

Klingman discusses a purchaser of products registering, i.e., voting, his level of satisfaction with a seller of the products (Klingman, col. 20, lines 57-59; col. 21, lines 14-17). The Examiner correlates such "voting" with the present state of a user, in item 3, on page 5 of the Office Action. However, Klingman does not disclose or suggest the same. A user's state of feeling is not the same as a user's level of satisfaction with a particular product. For example, a user's state of feeling can include the user's appetite, which has no similarity to a level of satisfaction with a purchased product.

Because neither Takayama (as admitted by the Examiner) nor Klingman (as described

herein) discloses or suggests that said service center further including determining means for determining whether or not service can be provided to the user based on a present state of the user, claim 13 is patentably distinguishable over Takayama and Klingman, taken alone or in combination.

Dependent Claims:

Claims 2, 6-11, and 14-19 of the subject application are allowable based on their dependency, directly or indirectly, from one of allowable claims 1, 5, and 13 (as amended herein).

Lack of Motivation to Combine the Cited References:

MPEP § 2142 states that "[w]hen the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper." The Examiner is required to present actual evidence and make particular findings related to the motivation to combine the teachings of the references. In re Kotzab, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000); In re Dembiczak, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999). Broad conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence." Dembiczak, 50 USPQ2d at 1617. "The factual inquiry whether to combine the references must be thorough and searching." In re Lee, 61 USPQ2d 1430, 1433 (Fed. Cir. 2002) (citing McGinley v. Franklin Sports, Inc., 60 USPQ2d 1001, 1008 (Fed. Cir. 2001)). The factual inquiry must be based on objective evidence of record, and cannot be based on subjective belief and unknown authority. Id. at 1433-34. The Examiner must explain the reasons that one of ordinary skill in the art would have been motivated to select the references and to combine them to render the claimed invention obvious. In re Rouffet, 47 USPQ2d 1453, 1459 (Fed. Cir. 1998).

The Examiner has not presented any evidence why any of Takayama, Albert, Klingman, Loder, Vatanen, Barabash, Forslund, Watts, and Shitara would have been combined. The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. MPEP § 2143.01. Specifically, there must be a suggestion or motivation in the references to make the combination or modification. Id. For example, the Examiner's sole support for the combination of Takayama

and Albert is that "it is efficient" to do so. In another example, the Examiner's sole support for the combination of Takayama and Klingman is that it is "obvious[ly] efficient" and that "the sale of products could be improved based upon the customer's feedback opinion." The Examiner cannot rely on the benefit of the combination without first supporting the motivation to make the combination. Such motivation does not appear anywhere in any of the references, and the Examiner has not presented any actual evidence in support of the same. Instead, the Examiner relies on broad conclusory statements, subjective belief, and unknown authority. Such a basis does not adequately support the combination of references; therefore, the combination is improper and must be withdrawn.

New Claim 26:

New claim 26 is patentably distinguishable over the cited references because none discloses or suggests the claimed invention.


Withdrawal of the foregoing rejections is respectfully requested.

There being no further objections or rejections, it is submitted that the application is in condition for allowance, which action is courteously requested. Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters. If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 10-3-2002

By: 
Matthew Q. Ammon
Registration No. 50,346

700 Eleventh Street, NW, Suite 500
Washington, D.C. 20001
(202) 434-1500

VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please REPLACE the paragraph beginning at page 18, line 1, with the following paragraph:

--FIG. 3 is a block diagram of a portable communication device according to the present invention. The portable communication device shown in FIG. 3 is different from the PHS handset shown in FIG. 1 with respect to a multi-purpose MPU 23 which can execute programs, a protocol controller 24, a memory 25, an arithmetic circuit 26 exclusive for calculating a cipher, and a short distance communication device I/F 27.--

Please REPLACE the paragraph beginning at page 18, line 10, with the following paragraph:

--An OS (operating system) is installed in the MPU 23 so that peripheral devices are controlled by the MPU 23. The MPU 23 also [execute] executes programs stored in the memory 25.--

Please REPLACE the paragraph beginning at page 18, line 16, with the following paragraph:

--The memory 25 stores data such as application programs, name and address of a user, deposited digital cash (data of digital money), digital data of a ticket, and data regarding points given by a store when payment is made. The data stored in the memory 25 is read by the MPU 23, and is output after being processed. FIG. 4 shows contents of data stored in the memory 25. As shown in FIG. 4, the memory 25 stores application programs for receiving various services, personal attribute information, personal telephone book, registered data, service information, etc.--

IN THE CLAIMS:

Please CANCEL claim 3.

Please AMEND claims 1 and 5. The remaining claims are reprinted, as a convenience to the Examiner, as they presently stand before the U.S. Patent and Trademark Office.

1. (TWICE AMENDED) A portable communication device for communicating with a remote communication terminal, the portable communication device being configured and arranged to be used in a digital money system, comprising:

a remote communication interface interfacing radio-frequency communication with a remote communication terminal;

a short-distance communication interface interfacing wireless communication with a communication terminal located at a point of transaction involving the use of digital money; inputting unit inputting data or instruction information to said portable communication device;

a memory storing the data input by the inputting unit or data received via said remote communication interface and said short-distance communication interface;

a display unit displaying the data input by said inputting unit or data received via said remote communication interface and said short distance communication interface;

an enciphering circuit enciphering data to be transmitted to the remote communication terminal via said remote communication interface and data to be transmitted via said short-distance communication interface;

a deciphering circuit deciphering data received from the remote communication terminal via said remote communication interface and data received via said short-distance communication interface; and

a controlling unit controlling each of said remote communication interface, said short-distance communication interface, said inputting unit, said memory, said display unit, said enciphering circuit and said deciphering circuit,

wherein said enciphering circuit and deciphering circuit are constituted by an enciphering/deciphering processor, and an enciphering and deciphering method used by said enciphering/deciphering processor is changed by changing software installed in said enciphering/deciphering processor.

2. (AS ORIGINAL) The portable communication device as claimed in claim 1, wherein said inputting unit includes at least one of voice inputting device and an operational key panel.

3-4. (CANCELED)

3 ~~8~~. (TWICE AMENDED) A digital money system for using digital money to pay for a purchase as service, comprising:

- a computer of a financial institution;
- a radio base station in communication with said computer of the financial institution;
- a store terminal receiving digital money data for payment; and
- a portable communication device in communication with said radio base station via a radio frequency, said portable communication device also in communication with said store terminal in a wireless manner; and

- wherein said portable communication device stores the digital money data transmitted from said computer of the financial institution after deciphering the digital money data; and

- said portable communication device transmits the digital money data for payment to said store terminal after enciphering the digital money data for payment,

- wherein said portable communication device comprises:

- a remote communication interface interfacing radio-frequency communication with said radio base station;

- a short-distance communication interface interfacing wireless communication with said store terminal located at a point of transaction involving the use of digital money;

- inputting unit inputting data or instruction information to said portable communication device;

- a memory storing the data input by the inputting unit or data received via said remote communication interface and said short-distance communication interface;

- a display unit displaying the data input by said inputting unit or data received via said remote communication interface and said short distance communication interface;

- an enciphering circuit enciphering data to be transmitted to said computer of the financial institution via said remote communication interface and data to be transmitted to said store terminal via said short-distance communication interface;

- a deciphering circuit deciphering data received from said computer of the financial institution via said remote communication interface and data received from said store terminal via said short-distance communication interface; and

- a controlling unit controlling each of said remote communication interface, said

short-distance communication interface, said inputting unit, said memory, said display unit, said enciphering circuit and said deciphering circuit,

wherein said enciphering circuit and deciphering circuit are constituted by an enciphering/deciphering processor, and an enciphering and deciphering method used by said enciphering/deciphering processor is changed by changing software installed in said enciphering/deciphering processor.

4 ~~6~~. (AS ONCE AMENDED) The digital money system as claimed in claim ³~~6~~, wherein said store terminal includes customer information storing means for storing information regarding a customer so that, when the customer makes a payment by the digital money via said store terminal, said store terminal stores information regarding the payment in said customer information storing means, the information regarding the payment includes information regarding an item for which the payment is made, an amount of payment and date and time of the payment, and said store terminal transmits the information regarding the payment to said portable communication device together with store information to said short-distance communication interface of said portable communication device.

5 ~~7~~. (AS ORIGINAL) The digital money system as claimed in claim ⁴~~6~~, wherein said portable communication device receives the information regarding the payment via said short-distance communication interface, and stores the information regarding the payment in said memory.

6 ~~8~~. (AS ORIGINAL) The digital money system as claimed in claim ⁵~~7~~, wherein said portable communication device displays at least a part of the information regarding the payment on said display unit.

7 ~~9~~. (AS ORIGINAL) The digital money system as claimed in claim ⁶~~8~~, wherein said portable communication device sends a request for service to said store terminal via said short-distance communication interface when an amount of payment or points exceeds a predetermined level, and said store terminal determines whether use of the digital money by said portable communication device satisfies a predetermined requirement so as to transmit digital data corresponding the requested service to said portable communication device when the use of the digital money by said portable communication device satisfies the predetermined

requirement.

⁵
8 ~~10~~. (AS ORIGINAL) The digital money system as claimed in claim ~~7~~, wherein said portable communication device sends the information regarding the payment to said computer of the financial institution via said remote communication interface and said radio base station, and said computer of said financial institution produces a household account book based on the information regarding the payment sent from said portable communication device by using household account book software installed in said computer of the financial institution.

⁸
9 ~~11~~. (AS ORIGINAL) The digital money system as claimed in claim ~~10~~, wherein said computer of the financial institution sends data corresponding to the household account book to a communication terminal of a user of said portable communication device so that the household account book is displayed on a computer or a television set connected to the communication terminal periodically or upon a request by the user.

12. (CANCELED)

~~10~~ ¹³. (AS ONCE AMENDED) A service providing system comprising:
a service provider terminal of a provider of service;
a service center including service information storing means for storing information including information regarding various kinds of service which can be provided to a user, information regarding availability of service provided by the provider and information regarding message to be provided to the user, said service center further including determining means for determining whether or not service can be provided to the user based on a present state of the user;
a radio base station connected to said service center; and
a portable communication device comprising remote communication means for communication with said radio base station, said portable communication device further comprising inputting means for inputting information regarding a user's state of feeling, wherein said portable communication device sends the information regarding the user's state of feeling to said service center by said remote communication means when the information regarding the user's state of feeling is input by said inputting means; and
said service center determines whether there is service which can be provided to the

user by said determining means when said service center receives the information regarding the user's state of feeling, and sends the message stored in said service information storing means to said portable communication device when the service which can be provided to the user is present.

canceled

14. (AS ONCE AMENDED) The service providing system as claimed in claim 13, wherein said portable communication device includes a specific key for inputting the user's state of feeling so that the user can input information regarding the present state of the user by pressing the specific key.

¹⁰
11 ~~15~~. (AS ORIGINAL) The service providing system as claimed in claim ~~13~~, wherein said radio base station is installed at a plurality of locations so that a position of said portable communication device is determined by exchanging signals between said portable communication device and said radio base station, and said determining means determines whether or not there is service which can be provided to the user based on positional information of said portable communication device.

¹⁰
~~12~~ ~~16~~. (AS ORIGINAL) The service providing system as claimed in claim ~~13~~, wherein said portable communication device further comprises short-distance communication means for communicating with said service provider terminal and storing means for storing user information, and wherein said portable communication device sends the user information stored in said storing means to said service provider terminal when said portable communication device receives a message to the user from said service center.

¹²
~~13~~ ~~17~~. (AS ORIGINAL) The service providing system as claimed in claim ~~16~~, wherein said portable communication device receives the message to the user from said service provider terminal and outputs the message by voice so that the user sends the user information stored in said storing means to said service provider terminal via said short-distance communication means so as to make a reservation after hearing the voice message.

¹⁰
~~14~~ ~~18~~. (AS ORIGINAL) The service providing system as claimed in claim ~~13~~, wherein said service center further comprises:

temporary telephone number setting and announcing means for setting a temporary

telephone number to the service and announcing the temporary telephone number to a telephone station when service provided by said provider is time limited service; and

temporary telephone number canceling means for canceling the temporary telephone number when the service is completed,

wherein said service center provides information to said portable communication device by using the temporary telephone number, and cancels the temporary telephone number by said temporary telephone number canceling means when the service is completed.

¹⁴
~~15~~ ¹⁴16. (AS ORIGINAL) The service providing system as claimed in claim ~~18~~, wherein said provider of service sets the same temporary telephone number to each portable communication device when the same service is provided to each portable communication device.

20-25. (CANCELED)

Please ADD the following new claim:

¹⁶ ~~26~~ 26. (NEW) A portable communication device, comprising:
an input unit to receive a present state of feeling of a user; and
a communication unit to transmit the present state of feeling of the user to a remote terminal and to receive a transmission from the remote terminal indicating whether a service can be provided to the user based on the state of feeling of the user.